





AN
ACCOUNT
Of a New
ZOOPLYTE, &c.



THE UNIVERSITY OF CHICAGO

1900

THURSDAY

1900

ST. JOHN'S COLLEGE

CHICAGO, ILL.

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A N
A C C O U N T
Of a N E W
Z O O P H Y T E,
O R
A N I M A L P L A N T,
From G R O E N L A N D.

In a L E T T E R to

Dr. *Albert Haller,*

President of the Royal Society of Sciences at
Gottingen.

Written in *High German* by

CHRISTLOB MYLIUS.

Now translated into *English.*

Prior tempore, prior jure.

L O N D O N,

Printed for, and Sold by A. LINDE, Bookseller to her
Royal Highness the Princess Dowager of *Wales*, in
Catharine-Street; and Sold by J. ROBINSON, in *Ludgate-
Street.* 1754.

AN

ACCOUNT

OF THE

EXPENSES

OF

ANIMAL PLANT,

FROM GERMANY.

RELATIVE

Dr. Albert Haller.

A TRANSLATION OF THE ORIGINAL GERMAN
BY

JOHN H. HALLER.

CHRISTOPHER MILLER.

NEW YORK: 1844.

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Room opposite the Theatre of Arts, in
St. Martin's Lane, London, W.C.
1844.



AN
ACCOUNT
Of a NEW
ZOOLOGY.

SIR,



THE great Share You take in
procuring a good Success to my
American Travels, for which I
am actually preparing; the Obligations I owe in a particular Manner to a
B learned

learned Society, whose chief Manager you are ; together with those Favours you bestowed on me, which I shall, at all Times, be ready gratefully to acknowledge ; and that high Regard which every one, that esteems Sciences tending to publick Advantage, and entertaining in themselves, pays to you on all Occasions, as one of the most skilful Abettors of the same, are the Motives, *S I R*, that induced me to dedicate this Epistolary Account to you ; in which I am to give a Proof of my future Inquiries in *America*, upon such Subjects as belong to *Natural History* ; the Value of which you are best able to determine. The *Zoophyte*, however, or *Animal Plant*, I am going to describe, does not seem ever to afford any Advantage to the Publick in common Business of Life : Yet, *S I R*, was it in my Power to chuse what I should first meet with, either a Subject of this Kind, or only remarkable in general, by the Description of which I could in some Manner shew how I would spend the Time of my Travels, and embrace every

Oppor-

Opportunity to pay my Respects to you ? And besides that you are doubtless of my Opinion, that a Searcher of Nature ought to have in his View not only the Advantage of the Publick, but chiefly the Glory of the great Maker of all Things ; which last Particular I at least flatter myself to obtain, by the Account of so singular a Subject as the *Zoophyte* now before me.

It is necessary, before I begin this Account, to mention, that, if in the Main I shall seem to contradict myself, speaking of the same Thing, at first as of a *Vegetable*, and then as of an *Animal*, it is only in order to express myself in a more regular and plain Manner. The Circumstances in explaining this Subject, are equally the same with me as with those that teach *Astronomy*, who, for the Sake of Instruction, represent the Heavens as the Surface of a Globe, on which the Stars appear affixt near one another ; although this Notion will entirely vanish away, as soon as a Person

is arrived at the true Knowledge of the Heavens, founded on such imaginary Principles.

CAPTAIN *Adrians*, of the *English Groenland* Ship the *Britannia*, a Native of *Jutland*, is the Person, who, as he was last Summer on a Voyage for the Whale-Fishery, brought from the *Groenland Seas* two Productions of a Plant that appeared very singular to him. He had given them to Mr. DUNZE of *Bremen*, once a worthy Scholar of yours, my sincere Friend, who afterwards made me a Present of one of them, and by that gave me an Opportunity to examine it in the exactest Manner possible.

THE Captain had related, that these two Plants were drawn up with the Line, on Board of his Ship, as they were sounding the Sea, out of a clayish Ground, 236 Fathoms deep; that is, 1416 Feet; 79 Degrees, North Latitude, about 90 *English* Miles from *Groenland*. This great Latitude, to which a
Searcher

Searcher of Nature rarely can proceed, and the surprizing Depth, into which Naturalists still more rarely can dive, are sufficient to make this Production remarkable: And had not the Captain taken particular Notice of it, which Attention one should scarcely expect from those that sail upon the Whale-fishery, it would probably have continued unknown for some Time longer, if not for ever.

It is not merely by my own Judgment, when I declare this Production as new, and hitherto unknown: I shewed it to three Gentlemen of great Knowledge and Experience in those Things, *Fellows* of the *Royal Society*, viz. to Messrs. WATSON, COLLINSON, and MILLER. It was unknown to them, and they declared it to be a rare Production.

EACH of the two *Plants* was broke in three Pieces; which Accident however did not hinder me from laying it before me, according to its compleat Form and Size. As I have
seen

seen it in that Manner, I shall now describe it accordingly.

It had a bare Stalk, without any Leaves, on the Top of which, where the Stalk bends a little Sideways, a Flower was fix'd. *Fig. I.* represents the whole Plant in Miniature. Its natural Size, Stalk and Flower together, is four Feet and an Half; the Flower alone is two Inches $\frac{1}{2}$ high, and measures about its Middle one Inch and a Quarter round; at the Top it is a little more close. On Account of the Notches Lengthways and across, I discovered, at the first Sight of it, some Likeness to those petrified Bodies we call *Encrinos*, or *Lilly-stones*, which are supposed to be some Kind of *Sea-stars* petrified: But the Tops of the Flower being fibrous, had so much the less any Appearance of this Petrification. The Stalk, a little below its Middle, is one Line and an Half thick, but grows gradually downwards to the lower Extremity as thick again; and gradually towards the upper End, more than once as thin. It looks
thicker

thicker about two Inches and an Half underneath the Flower ; but this is only as it were a Bladder, to the Inside of which the Stalk adheres, and is lost downwards in the *Superficies* of the Stalk. About Half a Foot from the lower End the Stalk is a little thicker than lower down. Quite below, at the farthest End, it grows again a little thicker, where it terminates compleatly ; by which one may plainly see that nothing was broke or torn off.

THE Stalk is square throughout, with a Notch on every Side. It is white within, and of a Substance like to Wood, with long Filaments, and nearly as hard as Ivory, cover'd by a tender Skin, of a pale yellow Colour. At the lower End, before-mentioned, it is of a yellowish Brown upwards, and of a deep yellow Colour downwards. The Skin of this Part of the Stalk is thick and tough, through which one may feel the Continuation of the solid Stalk within it. It is still moist, and very pliable. From whence, as also from
other

other Circumstances already mentioned, I conjecture, that the lower Part of the Stalk, Half a Foot in Length, stuck in the Clay, and is to be taken for the Root of the Plant, if this may be called a Root.

AT the Time this Plant was taken out of the Sea, the Stalk was of a high yellow Colour, and not so hard as it turned afterwards, but pliable ; and the Stalk of the other Plant is all turned cockle-wise.

A PIECE of the lower Part of the Stalk, and the upper Part of the Root, are represented by *Fig. 2.* according to their natural Size.

IN order to examine the Flower more exactly, and to restore it to its natural Form, as much as possible, I put it for a Couple of Hours in Water : For the Captain could give no farther Account of it, but that, when taken out of the Sea, it was more opened, and of a yellow Colour, which, as I got it
quite

quite dry, was turned to a deep Brown. When I took it out of the Water it was more opened, and as big again as before ; in short, it appeared then as represented by *Fig. 3.* The adhering Piece of the above-mentioned Bladder-like and pale yellow Skin was turned something Cockle-wise, and the Colour of the Flower between Yellow and Brown. It was composed of thirty Pieces, of the Shape of a Cone, but not so regular, which I can neither call Leaves of a Flower, nor Stamens, as will appear by the following Description. These Pieces were all grown together at the Bottom, and some deep Notches running obliquely together, gave the lower Parts of them the Appearance of a Flower-pot, or Chalice, (*Fig. 3.*) very like the above-mentioned Lilly-stones. The upper Ends of them terminated into some Cheves, not very regular.

THE outer ones of these oblong Pieces had loosened themselves in the Water ; the rest

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I could easily get afunder, except five of the inner ones, which seemed at first grown together, but were at last, by the Use of a Penknife, likewise got afunder without being hurt. The outer ones are the largest, towards the Middle they are lesser and lesser. *Fig. 4.* shews one of the largest, separate from the Flower.

THE Back of every one of these Pieces is something convex, but the Inside a little hollow, because it rests on the Back of another, when the Flower is crumpled up, or not quite opened, as here. Along the Back, which is convex, run for the most three unregular Notches, transversed by a Multitude of Notches, not so regular as those upon the Lilly-stones. On the Inside two Notches are observed all along.

THE Substance of these Pieces is like a thick and tough Skin, easily to be torn when wet. The smaller Sort of these Pieces towards the Middle were tenderer, softer, and
of

of a lighter Colour. After I had cut open one of the largest along the Inside, it appeared as by *Fig. 5*. It will be necessary, for the explaining of this Figure, to give some Description of the Shape and Situation of the inner Texture, whose Parts are something of a lighter Colour, and more tender.

ALONG through the Middle runs a Partition, dividing itself afunder, on the inner Part of the Piece, in two Skins, which, as they turn over to both Sides, and being grown together with the outer Skin of the Piece, cause to both Sides of the Partition a Space resembling the Shape of a Cone, or thereabouts. Besides these two Spaces there are two more of the same Shape, one at each Edge all along the Piece, arising from the Skin's turning over to both Sides. These two outermost Spaces, or Cavities, are empty, but the two inner ones, next to the Partition, are found of an *Organick Structure* within, consisting of a Number of very small and

tender Leaves, like Half-Moons, growing gradually towards the upper Extremity less and less, and ceasing together with the Partition and the two Skins underneath the fibrous End of the Piece. A narrow and empty Space is betwixt every one of the Leaves.

ALL this *Fig. 5.* will, I hope, shew plainly enough, though I have added no Instructions, in order not to disfigure or deface its tender Parts.

WITHIN the two inner Cone-like Spaces, or Cavities, are found many little orbicular Corpuscles, of an Orange-colour ; their Situation and Size may likewise be seen by *Fig. 5.* And *Fig. 6.* represents one of them magnified. I could not find any of these orbicular Corpuscles, which I took for the Seeds, betwixt the just mentioned little Leaves, they being all outward of them, though between the Partition and the Skins that were turned over. A good many were also found underneath

neath the Partition and the Leaves, that reached not quite down to the lower End of the irregular Cone-like Pieces. Some of the Seeds appeared less than the rest, yet the larger and the smaller ones lay promiscuously together, without Regard of their Situation. I squeezed one, and beholding the white tender Matter that came out, through a Magnifying Glass, I observed it to consist thoroughly of some very little, but transparent, and Globular Bubbles, as by *Fig. 7*. When I had laid one Corn on the Point of a Knife, and holding it over a Flame for the Space of a Second, or thereabouts, it burst with a sudden, and, as I may say, frightening little Crack, and the remaining torn Skin or Shell, looking then white, leapt suddenly back in a Bow-like Course, resting at about two Inches Distance from its former Place, upon the Edge of the Knife. The Bursting of so small a Corn could scarcely have caused such a Crack, but that all the Bubbles contained, being above a Hundred in a Corn, burst by Means of the Heat at once.

HITHERTO

HITHERTO I have spoken of this new Sea-Production, as of a *Vegetable* : But

*In nova fert animus mutatas dicere formas
Corpora,*——

And, instead of *Animals* being, before *Ovid's* Time, generally changed into *Vegetables*, I shall now declare this *Sea-Plant* to be a *Sea-Insect*.

AFTER having made and wrote down my Remarks upon this strange Sea-Production, the Fellow of it fell into the Hands of Mr. JOHN ELLIS, a Merchant of great Skill in Natural History, especially in the Kingdom of Plants; he had it from Mr. COLLINSON, a Merchant, and Fellow of the Royal Society, your worthy Friend, to whom Mr. DUNZE had made a Present of it. Mr. EHRET, a famous Painter of Plants, who is very well known to you, got me acquainted with Mr. ELLIS. I went to him, in order
to

to see his fine Collection of *English* Sea-Plants. The first Thing I saw was this very *Sea-Production*, a Painter being employed to take a Copy of it. Mr. ELLIS observing my Attention was fixed upon it, began to give me an Account of that new *Phenomenon* in the Kingdom of Nature, as far as he knew it. I, interrupting his Discourse, said, Sir, I know this Plant; I have it myself.—What! replied he, a Plant? No, no, it is an Animal; it is a Polypus. I would not begin my first Visit with contradicting him, therefore listened to what he had farther to say of it. He assured me every one of the oblong hollow Pieces was a Polypus. The upper Part of such a Piece, which he had pasted upon some Paper, with its Fibres extended, and the Draught he had made of it, looked indeed more like a Polypus than a Flower-leaf, especially on Account of the Mouth-like Opening in its Middle. Mr. ELLIS had also caused a Picture to be drawn of some Part of the supposed Flower or Bunch of the Polypus, exactly
after

after the Situation and Shape of a Polypus : But neither he, nor I, having seen any Thing like his two Copies on the Original, I was obliged to suspend my Judgment concerning his Opinion.

IN the mean Time he shewed us (Mr. *Dunze* was also present) his large and well-disposed Collection of *English* Sea-Plants, which one should scarcely imagine in *Europe* of such a Variety and Beauty, in regard to their fine Figurations, as well as the Liveliness of their Colours ; but an evident and palpable Proof was here to be met with.

BUT why do I call them Sea-Plants ? Most of these supposed Sea-Plants, excepting the *Alga*, or Sea-Weed, and the *Titanoceratophyton*, or Horn-Plant, were Nothing but Vegetable-like Habitations of Sea-Insects, hitherto known by the Names of little Corals, Sea-Mosses, Sea-Sponges, &c. I had no more any Doubt remaining with me concerning

cerning the remarkable Discovery Mr. ELLIS had made, with a great Deal of Patience and Attention, by the Use of a Microscope, he being so kind as to convince us of the Truth, by applying his Microscope upon fundry Mosses of the little Coral. It will, doubtless give you a great deal of Satisfaction, Sir, when I here acquaint you that Mr. ELLIS's Book, containing his Discoveries by the Microscope, is in the Press, and will probably be published the latter End of this Year: I have seen already a good many Cuts to it at his House. I speak justly of this Work, as of new Discoveries. For although the Corals and Corallous Sea-Plants are already known to be the Habitations of several Sea-Vermine, No-body has yet made any such Discoveries, concerning the above-mentioned smaller Sorts of Vegetable-like Sea-Productions.

THIS Excursion has rather brought me nearer to, than farther off from my Purpose. I am now in a Capacity to confess with more Certainty than before, that I take

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this Sea-Production now myself for an Animal, or Animals. The Eyesight of so many Sea-Productions, that looked all like real Plants, taught me, that they belonged, notwithstanding, to the Animal Kingdom; and my Ideas concerning Subjects of this Kind, grew gradually so animal, by the Sight of them, that, looking at last once more at my new *Groenland* Sea-Growth, I could see no more any Thing like a Vegetable about it but the Stalk, and its having stuck fast in the Bottom of the Sea; hence I declared it with Mr. ELLIS, without any farther Hesitation, to be a ZOOPHYTE, or, ANIMAL PLANT; but could not venture yet to agree with him in its being of the Polypus Kind.

THIS Instance of having considered one Subject two different Ways, made me observe, with a moral Pleasure, but physical Displeasure, the Influence our Judgment has on our Senses in certain Cases, by which Naturalists, imposed by their Imagination, find Things easily so in Nature, as they at
first

first believe them to be. This strange Subject of my present Discourse, was given me by the Name of a Sea-Plant: I took it as such, and supposing this, I was only surprised at not finding all the usual Parts of a Plant, and its being for the most quite differently shaped. Leaves I saw none; but these are no essential Parts of a Plant. I found a Stalk, and what was still more, a Flower; the Shape so different from all other Flowers could not make me believe it was none; as I was acquainted with many strangely shaped Flowers and Fruit-bearing Plants, especially among the *Cryptogamic* Class of Plants. So much the easier I persuaded myself of the yellow round Corns, to be the Seeds of the Plant.

Mr. ELLIS, on the contrary, being then occupied in proving, and from very good Reasons indeed, that many of the Sea-Plants, hitherto taken for Vegetables, were Animals, and most of them Polypuses, went with this Notion directly to the Contempla-

tion of this new Sea-Production. He saw a Number of Animals where I had seen a Flower; he saw so many Polypuses, as I had seen Pieces of the Flower; he took that for a Supporter of the Polypuses, what I had taken for a Stalk; and called Eggs, what I had called Seeds. I was increasing the Vegetable Kingdom, by adding a new Subject, and he was enlarging the Number of Animals.

AT my paying him a Visit, he had not seen yet the round Corpuscles observed by me, which he said were Eggs: And as he did not chuse to cut open a Piece of his own, and being desirous at the same Time to see whether there was not something more observable in one than in the other, he required me to send him mine for looking at it. I sent it him, and he soon returned it with a Letter, containing, “ That he was still convinced of
 “ this Subject’s being of the Polypus Kind,
 “ and the Rows of Seed-like Particles No-
 “ thing else but the Eggs of the Animal, he
 “ having

“ having observed them to grow larger as
 “ they came out higher.” This, I must say,
 I never could observe, tho’ I own they were
 of a different Size.

BEING now nearly convinced that this Sub-
 ject was at least more animal than vegetable,
 I thought it necessary to examine more ex-
 actly that Part which would entirely convince
 me of its being an Animal. Having, there-
 fore, the Flower-like Bunch once more put
 into Water for some considerable Time, in
 order to have it spread, I divided asunder the
 Fibres of one of the largest single Pieces with
 a Penknife, which succeeded very easily, and
 I could plainly see these Fibres were not
 grown together. I found eight such Fibres
 upon each single Piece I had examined after
 this Method ; each Fibre running to a Point
 at the Top, and Nothing but very fine and
 small Threads shooting out on their Sides.
 Underneath, where these Fibres join with
 the single Piece, that appeared hollow and
 of the Shape of a Cone, the Skin extended
 upwards

upwards with a Mouth-like Aperture; which is, indeed, to be taken for the real Mouth of the Animal. *Fig. 8.* shews these Fibres and the Mouth, together with some Part of the single Piece, in their natural Shape and Size. I cannot say I have seen these Parts in such a Situation by Nature; but to shew the Shape of the Fibres and Mouth, I would not have it omitted; as it is probable (provided this Production be a real Animal) that these Fibres frequently turn themselves into such a Situation, *viz.* whenever the Animal chafes its Rapine.

IF Mr. ELLIS reckons this Insect among the Polypuses, merely on Account of these Fibres or Tentacles, which serve the Animal for feeling about, I have nothing against it. But I must attribute the Fault to my Eyes, if I remark some other Circumstances, too much receding from the Nature of Polypuses, that prevent me at this Time from reckoning it amongst them; such are the Stalk and the Eggs. Those Parts of other Polypuses, as do not belong
to

to their Bodies immediately, but only serve for fastening them to some other Thing, are, for aught I know, never so much different in Length and Substance from the Body of the Polypus itself, and this Part or Stalk has never so much the Appearance of a Vegetable. 'Tis true, some Sorts of Sea-Insects I saw at Mr. ELLIS's, and which he also called Polypuses, have Supporters of a Substance as different from their Bodies as this ; but they are not so firmly grown together with the Bodies of the Polypuses, nor continuing in a Piece, as is the Case with our present Sea-Insect. The Eggs are still of greater Weight to me for my Dissention ; methinks the Notion of a Polypus imports a Propagation, not by Eggs, at least not so visible ones, but rather after the Manner of Vegetables.

I HAVE said above, and it will also appear by my Account, that this Sea-Animal is something like a Sea-Star, called a Lilly-Stone :

Stone : Mr. ELLIS himself has observed this, but would not allow the Name upon that Account. It also plainly appears to be neither a Sea-Star of this, nor any other Kind hitherto known. Yet I do not see any Reason why it would be too bold to assert it to be a Kindred of Sea-Stars : For if the whole Bunch, and every Part of it, spreads about, as it probably does, is not this the Figure of a large Star ? Another little Star also appears on every Point of the same. And might not therefore this new Sea-Insect be called *Asterias Zoophytos composita*, that is, *a compounded Zoophyte-Sea-Star* ? The Shape and Substance of this Insect have, at least, more the Similitude of common Sea-Stars, and particularly of the *Medusa's Head*, than that of a Polypus. It also resembles more a Sea-Star, on Account of its inward Structure, as well as on Account of its Mouth in the Middle. But, you will say : For what is the Stalk ? I ask again, instead of an Answer : For what is a Stalk to the Lilly-stones, which notwithstanding

standing are universally taken for a kind of Sea-Stars? Truly it serves them for being fastened to something. None indeed of the natural Sea-Stars hitherto known has such a Stalk, and all of them have the Faculty to change their Places: But have not most of the Muscle-kind the same Faculty! And yet, some Sorts of them are constantly fastened to one Place. I will carry my Conjectures no farther, but rather wait with an impartial Mind, till I am convinced of the contrary.

LATELY, as I had the Honour to attend at a Meeting of the Royal Society, a short Account of Mr. ELLIS's, concerning this very *Zoophyte*, was just reading. Mr. ELLIS, who was present, shewed me his Draughts of the same, among which, there was one representing some Part of this compounded Animal, in the Situation, as he supposes it, to make its Motions and Windings in the Sea. This Figure is well enough to explain his Conjectures: But Mr. ELLIS cannot positively

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affirm, that this Animal ever takes such a Shape ; and therefore I purposely left his Figure away from this Account, especially as I would keep as close as possible to that only which I had seen. I also took Notice of the Bunch in Mr. ELLIS's Draught, which was too stiff, and too regular, in Comparison to the Original, at the Time it came into his Hands and mine ; but this was the Painter's Fault.

I do not doubt but there may be some Naturalists, who will take this Sea-Production for a mere Vegetable, notwithstanding the great Probability of its being an animal Plant. I am satisfied with having described it as nearly as possible ; it will be equal to me what Name shall be given to it. But I shall, in this Case, submit to your Authority, SIR, being convinced of your deep Penetration, equally esteemed by all the Searchers of Nature, assuring you, at the same Time,
that

(27)

that no Man can, with a more sincere Heart
and profounder Respect, be,

S I R,

Your most obedient Servant,

London, Nov.
16, 1753.

CHRISTLOB MYLIUS.

F I N I S.



1850

Received of the Treasurer of the
County of ...

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